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DATA REDUCTION AND ANALYSIS FOR ISEE-A AND -B ENERGETIC PARTICLES FLUX EXPERIMENT AND ISEE-C ELECTRON AND X-RAY EXPERIMENTS

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## FINAL TECHNICAL REPORT ON CONTRACT NAS5-25980

The purpose of contract NAS5-25980, effective November 1, 1979 through September 30, 1983, was to analyze data from several experiments which were designed and fabricated under contracts NAS5-20079 and NAS5-22307 and flown on the three ISEE spacecraft. Detailed technical descriptions of the experiment hardware, the operation of the experiments in flight, and lists of the earlier publications resulting from the experiments are given in the final reports for the earlier contracts: respectively, "Energetic Particles Flux Experiment for ISEE Mother/Daughter Spacecraft" and "University of California Electron and X-ray Experiments on ISEE-3." Since the focus of NAS5-25980 was on data analysis, much writing and publishing of results from the experiments has occurred in the last several years, so this report consists mainly of an updated bibliography of all publications to date from all three contracts. These publications have already been submitted to NASA.

As the bibliography shows, data from the UCB-U Washington-Toulouse detectors were used to attack a large variety of scientific problems. Many effective scientific collaborations were formed in this connection, and the efforts continue. We also continue to furnish data to a number of ISEE and other groups of experimenters who have requested it. In addition, many talks have been presented at scientific and technical meetings in the U.S. and abroad.

The ISEE-1 and -2 high time resolution, low energy proton and electron analyzers continued to operate satisfactorily for the duration of NAS5-25980, as did the ISEE-2 solid state particle telescope. Also during this time, the ISEE-3 X-ray experiment operated extremely well with no discernable degradation.

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